

## CURRICULUM VITAE

Brent A. Reynolds

Date of Birth: 14 September, 1962  
Citizenship: Canadian  
Marital Status: Married (two dependents)  
Language: English

### EDUCATION

1993 Ph.D., Neuroscience (expected)  
University of Calgary, AB., Canada

1989 M.Sc., Medical Science (Neuroscience),  
University of Calgary, AB., Canada.

1986 Bachelor of Arts and Science in Psychobiology (Honours),  
University of Lethbridge, AB., Canada

1981 High School Matriculation  
Rocky Mtn. House, AB., Canada

### POSITIONS

1986 - 1993 Graduate Student  
Dept. of Medical Physiology/Dept. of Anatomy  
University of Calgary, Calgary, AB., Canada

1988 - 1990 Sessional Instructor  
Dept. of Anatomy and Physiology  
Mount Royal College, Calgary, AB., Canada

1985 - 1986 Summer Research Assistant  
Dept. of Psychology  
University of Lethbridge, Lethbridge, AB., Canada

### AWARDS

08/92 Alberta Heritage Foundation for Medical Research Studentship

07/90 Pharmaceutical Manufacturers Association of Canada/Medical Research Council of Canada Studentship

11/86 Alberta Heritage Foundation for Medical Research Studentship

09/85 Louise McKinney Scholarship for Academic Excellence

04/85 Natural Sciences and Engineering Research Council of Canada Studentship

**TEACHING**

1986 - 1988      Student Instructor  
                    Subject: Human Anatomy and Physiology,  
                    University of Calgary.

1988 - 1990      Sessional Instructor  
                    Subject: Human Anatomy and Physiology,  
                    Mount Royal College, Calgary

**INVITED LECTURES**

CytoTherapeutics, Providence R.I.      September, 1992.

Physiological roles for the EGF system.  
Nashville      November, 1992.

University of Washington  
Seattle, Washington      Febuary, 1993.

Canadian College of Neuropsychopharmacology:  
Programmed Cell Death and Neuronal Plasticity      June, 1993.

**CONSULTING**

July, 1992 - July, 1993      Consultant to CytoTherapeutics, Inc.  
                                    Providence, R.I. 02906  
                                    401-272-3310

**PATENTS AND INVENTIONS**

1. Novel growth factor-responsive progenitor cells which can be proliferated *In Vitro*.  
    Filed: July 8/ 1991  
    Serial No. 07/726,812
2. Remyelination using neural stem cells.  
    Filed: October 16/1992  
    Serial No. 07/961,813
3. Biological factors and neural stem cells.  
    Filed: October 28/ 1992  
    Serial No. (unknown)
4. Genetic modification of growth factor receptive neural stem cells.  
    Filed: January 28/1993  
    Serial No. (unknown)

**PUBLICATIONS****Papers**

Reynolds, B.A., Tetzlaff, W. and Weiss, S. A multipotent EGF-responsive striatal embryonic progenitor cell produces neurons and astrocytes. *J. Neuroscience*, 12,4568-4574, 1992.

Reynolds, B.A. and Weiss, S. Generation of neurons and astrocytes from isolated cells of the adult mammalian central nervous system. *Science*, 255, 1707-1710, 1992.

Kolb, B., Reynolds, B.A., and Fantie, B. Frontal cortex grafts have opposite effects at different postoperative recovery times. *Behavioral and Neural Biology*, 50(2): 193-206, 1988.

### Book Chapters

Reynolds, B.A. and Weiss, S. EGF-responsive stem cells in the mammalian central nervous system. *Restorative Neurology and Neuroscience*, in press 1993.

Bisby, M.A. and Reynolds, B.A. Transport of cytoskeletal proteins in regenerating axons. *Proceedings of the XI International Congress of Neuropathology*, 618-621, 1990.

Reynolds, B.A., Leonard, C. and Weiss, S. Isolation and proliferation of adult mammalian CNS stem cells. *Cell Biology: A Laboratory Handbook*, in press 1993.

### ABSTRACTS

Reynolds, B.A. and Weiss, S. EGF-responsive central nervous system stem cells. *NIDR, NIH: Physiological roles for the EGF system*. Nashville, 1992.

Reynolds, B.A., Lundberg, C., Bjorklund, A., Brundin, P., Lindvall, O., Odin, P., Hasham, R., Lee, R.G., Newcastle, N.B., Suchowersky, O., Tetzlaff, W.G., Watson, T.W.J., and Weiss, S. EGF-responsive progenitor cells in the embryonic human central nervous system. *Society for Neurosci.*, 467.3, 1992.

Reynolds, B.A. and Weiss, S. A non-transformed, growth factor-dependent stem cell line derived from the embryonic mouse CNS produces neurons, astrocytes and oligodendrocytes. *IV International Symposium on Neural Transplantation*. 34.P3, 1992.

Weiss, S. and Reynolds, B.A. EGF-responsive stem cells persist in the embryo to the adult. *IV International Symposium on Neural Transplantation*. 42.O1, 1992.

Hammang, J.P., Reynolds, B.A., Baetge, E.E. and Weiss, S. GAP-43 is developmentally regulated in glial cells derived from EGF-responsive CNS stem cells. *Society for Neurosci.*, 467.7, 1992

Fraser, D.D., Reynolds, B.A., Weiss, S. and MacVicar, B.A. Ion channel expression by EGF- responsive stem cells isolated from mammalian CNS. *Society for Neurosci.*, 467.2, 1992.

Weiss, S., Hasham, R. and Reynolds, B.A. An EGF-dependent stem cell line derived from the embryonic mouse CNS produces neurons, astrocytes and oligodendrocytes. *Society for Neurosci.*, 467.4, 1992.

Williams, J.S., Vescovi, A., Reynolds, B.A., Hammang, J.P., Baetge, E.E., and Weiss, S. EGF-generated mouse striatal neurospheres express the trkB neurotrophin receptor. *Society for Neurosci.*, 467.5, 1992.

Vescovi, A., Parati, E., Gritti, A., Reynolds, B.A., and Weiss, S. bFGF supports the survival of EGF- responsive striatal stem cells. *Society for Neurosci.*, 467.6, 1992.

Reynolds, B.A., Tetzlaff, W. and Weiss, S. Epidermal growth factor-induced proliferation of multipotent CNS progenitor cells *in vitro*. *European Neuroscience Association* 4218, 1991.

Reynolds, B.A. and Weiss, S. Generation of neurons and astrocytes from isolated cells of the adult mammalian CNS. *SmithKline Beecham Research Symposium of Neurodegeneration*, 1991.

Reynolds, B.A. and Weiss, S. Generation of neurons and astrocytes from progenitors of the adult mammalian CNS. *Society for Neurosci.* 222.5, 1991.

Williams, J.S., Reynolds, B.A., and Weiss, S. Embryonic neurospheres: Continual proliferation of CNS progenitors in suspension. Society for Neurosci. 222.6, 1991.

Vescovi, A., Reynolds, B.A. and Weiss, S. Growth factors influence the fate of EGF generated embryonic progenitor cells *in vitro*. Society for Neurosci. 222.7, 1991.

Weiss, S., Reynolds, B.A., Tetzlaff, W., Kolb, B. and Whishaw, I.Q. Transplantation of embryonic or adult EGF-generated mouse neurospheres into adult rats with cortical or striatal lesions. Society for Neurosci. 359.10, 1991.

Reynolds, B.A., Tetzlaff, W. and Weiss, S. EGF and TGF $\alpha$ -responsive striatal embryonic progenitor cells produce both neurons and astrocyts. Society for Neurosci. 474.2, 1990.

Reynolds, B.A., Weiss, S., and Tetzlaff, W. Epidermal growth factor (EGF) and epidermal growth factor receptor (EGFR) immunoreactivity in primary striatal neuronal cultures. Third International Symposium on Neural Regeneration, 1989.

Reynolds, B.A., Goehring, S.L., Tetzlaff, W., and Weiss, S. Does epidermal growth factor (EGF) play a role in the development of mammalian CNS neurons? Alberta Heritage Days, 1989.

Reynolds, B.A. and Bisby, M.A. Regenerating axons incorporate newly synthesized cytoskeletal proteins. Society for Neurosci. Abstract, 323.7, 1988.

Reynolds, B.A. and Bisby, M.A. Rapid transport of cytoskeletal proteins to growing neurites. Alberta Heritage Days 1988.

Reynolds, B.A. and Bisby, M.A. Rapidly transported cytoskeletal proteins. Alberta Heritage Days 1987.

Fantie, B.D., Reynolds, B.A., DiLullo, D., Anchan, R., and Kolb, B. Some factors affecting the influence of cortical grafts on the behavioral recovery of rats with medial frontal cortical lesion. Society for Neurosci. Abstract, 46.17, 1987

**IN PREPARATION/SUBMITTED**

Reynolds, B.A., Fraser, D.D., McVicar, B., and Weiss, S. An EGF-dependent, non- transformed mouse CNS stem cell produces neurons, astrocytes and oligodendrocytes. In preparation.

Reynolds, B.A., Hammang, J.P., Baetge, E.E., and Weiss, S. The fate of EGF-generated oligodendrocytes is influenced by cytokines. In preparation.

Ahmen, S., Reynolds, B.A., Vescovi, A. Hammang, J.P., Baetge, E.E. and Weiss, S. Neurotrophins induce the proliferation and stimulate neurite branching and outgrowth of EGF-generated neuroblasts. In preparation.

Vescovi, A., Reynolds, B.A., Fraser, D.D. and Weiss, S. bFGF influences the fate of EGF-generated progenitors. Submitted.